

What is claimed is:

1. A method of predicting failure of gas sensors in an incubator environment comprising the steps of:

analyzing at least one gas sensor for lifetime adjustment;

adjusting a percentage gas sensor lifetime hours;

normalizing said lifetime hours adjustments;

calculating the percentage gas sensor lifetime hours for comparison with its respective maximum percentage hours for said gas sensor; and

displaying a warning message to a user.

2. The method of claim 1, further comprising repeating the adjusting step every hour as determined by a cumulative clock in an embedded controller.

3. The method of claim 2, wherein an hour count is stored in percentage gas sensor lifetime hours at a temperature of 20 degrees Celsius in said embedded controller.

4. The method of claim 3, wherein the step of normalization includes gas concentration and gas sensor temperature remaining constant over a previous hour.

5. The method of claim 3, wherein the embedded controller tracks O<sub>2</sub> and CO<sub>2</sub> set points by percentage.

6. The method of claim 1, wherein the step of displaying a warning message to a user occurs once the percentage gas sensor lifetime hours exceed 90% of said respective maximum percentage hours for said gas sensor.

7. The method of claim 3, wherein the embedded controller tracks O<sub>2</sub> and CO<sub>2</sub> operation times.

8. The method of claim 4, wherein said gas sensor is an O<sub>2</sub> sensor.

9. The method of claim 4, wherein said gas sensor is a CO<sub>2</sub> sensor

10. A predictive warning system for incubator gas sensor failure, comprising:  
at least one gas sensor disposed in an incubator housing;  
an embedded controller for analyzing the at least one gas sensor for failure; and  
an interface display for indicating said gas sensor failure to a user.

11. The predictive warning system of claim 10, wherein said embedded controller tracks the O<sub>2</sub> and CO<sub>2</sub> set points by percentage.

12. The predictive warning system of claim 10, wherein said interface display is resettable.

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13. The predictive warning system of claim 10, wherein said embedded controller tracks the O<sub>2</sub> and CO<sub>2</sub> operation times.

14. The predictive warning system of claim 10, wherein said embedded controller adjusts a percentage gas sensor lifetime hours every hour.

15. The predictive warning system of claim 14, wherein said interface display indicates a warning message to said user once the percentage gas sensor lifetime hours exceed 90% of their respective maximum percentage hours for said gas sensor.

16. The predictive warning system of claim 15, wherein said gas sensor is an O<sub>2</sub> sensor.

17. The predictive warning system of claim 15, wherein said gas sensor is a CO<sub>2</sub> sensor.

18. A predictive warning system for incubator gas sensor failure, comprising:  
means for analyzing at least one gas sensor for lifetime adjustment;  
means for adjusting a percentage gas sensor lifetime;  
means for normalizing said lifetime hours adjustments;  
means for calculating the percentage gas sensor lifetime for comparison with their respective maximum percentage hours for said gas sensor; and

means for displaying a warning message to a user once the percentage gas sensor lifetime hours exceed 90% of said respective maximum percentage hours for said gas sensor.

19. The predictive warning system of claim 18, further comprising:  
means for adjusting the percentage gas sensor lifetime hours every hour.

20. The predictive warning system of claim 19, wherein an hour count is stored in percentage gas sensor lifetime hours at a temperature of 20 degrees Celsius in said embedded controller.

21. The predictive warning system of claim 19, wherein the step of normalization includes gas concentration and gas sensor temperature remaining constant over a previous hour.

22. The predictive warning system of claim 19, wherein the embedded controller tracks O<sub>2</sub> and CO<sub>2</sub> set points by percentage.

23. The predictive warning system of claim 19, wherein the embedded controller tracks O<sub>2</sub> and CO<sub>2</sub> operation times.

24. The predictive warning system of claim 18, wherein said means for displaying a warning message to a user is resettable.

25. The predictive warning system of claim 20, wherein said gas sensor is an O<sub>2</sub> sensor.

26. The predictive warning system of claim 20, wherein said gas sensor is an  $\text{CO}_2$  sensor.

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